

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A method of ~~network planning for a mobile network infrastructure comprising a switch site connected to a plurality of Hub sites that are connected to a plurality of radio base stations (RBSs) sites, wherein the mobile network is arranged to provide wireless data and voice services to access terminals in a way that the overall system quality is improved by improving the frequency reuse for said mobile network infrastructure~~ characterized by, connecting the Hub sites to the RBS using combination of point to point links and point to multipoint links, optimizing and network planning a mobile telecommunication network comprising a switch site connected to a plurality of base station controllers (BSC) hub sites and radio base stations (RBSs) sites defining the transport network of a mobile telecommunication network, wherein the mobile telecommunication network is arranged to provide wireless data and voice services to access terminals, and wherein an access terminal is a terminal device in a hub site for connecting an RBS site with a point-to-multipoint hub, the method comprising the step of:

allocating a combination of point-to-point links and point-to-multipoint links for the transport network based on the traffic capacity associated with the radio base stations (RBSs).

2. (Currently Amended) A method according to claim 1 wherein the point-to-point and point-to-multipoint links ~~link is a~~ are microwave linklinks ~~and is deployed with a frequency reuse of one requiring use of only a single wideband channel.~~

3. (Currently Amended) A method according to claim 1 wherein the point to point link is a microwave link and uses a portion of the point to multipoint frequency block consisting of a single wideband channel, without using a dedicated frequency, thus having a reuse of one. calls collected at the RBS requiring high it rate capacities utilize a portion of a same frequency spectrum within a point-to-multipoint frequency band such that the access terminal connects

transparently via a point-to-point link, effectively allowing use of a frequency reuse factor of one.

4. (Currently Amended) A method according to claim 3 ~~claims 2 or 3~~ wherein the interference ~~within a portion of the~~ at one or more locations in a point-to-multipoint covered sector is reduced by choosing either one of a point-to-multipoint access terminal or a point-to-point terminal as a function of the a carrier-to-interference (C/I) value in each location, thereby improving spectrum efficiency and an the system quality of service.

5. (Currently Amended) A method according to any of the preceding claims claim 1 wherein the network planning includes a first RBS site ~~is connected to a second RBS site by means of a point-to-point terminal such that the access terminal, co-located with the second RBS site, routes the traffic from both the first RBS site and the second RBS site to one of the hub~~ Hub sites such that the first RBS site is less affected by co-channel interference than if the first RBS site were connected to the one hub site via a point-to-multipoint access terminal.

6. (Currently Amended) A method according to claim 5 wherein the spectrum usage is minimized using ~~by means of the~~ angular antenna discrimination in conjunction with the traffic route diversity.

7. (Currently Amended) A method according to claim 1 wherein the RBSs include ~~are replaced by~~ business users receiving and running high bit-rate Business Access applications.

8. (Currently Amended) ~~A mobile network comprising a switch site connected to a plurality of Hub sites that are connected to a plurality of radio base stations (RBSs) sites, wherein the mobile network is arranged to provide wireless data and voice services to access terminals such that service quality is improved and interference reduced characterized in that, the Hub sites are connected to the RBS sites using combination of point to point links and point to multipoint links.~~ A network planning apparatus for optimizing a mobile telecommunication network comprising a switch site connected to a plurality of base station controllers (BSCs) hub sites and

radio base stations (RBSs) sites defining the transport network of a mobile telecommunication network, wherein the mobile telecommunication network is arranged to provide wireless data and voice services to access terminals, and wherein an access terminal is a terminal device in a hub site for connecting an RBS site with a point-to-multipoint hub, the network planning apparatus comprising:

means for allocating a combination of point-to-point links and point-to-multipoint links for the transport network based on the traffic capacity associated with the radio base stations (RBSs).

9. (Original) A mobile network according to claim 8 wherein the point-to-point links and point-to-multipoint links are any one of radio microwave links, fibre optic lines, or copper lines.

10. (Original) A mobile network according to claim 8 wherein the point-to-point link to the terminals are achieved by use of radio antennas having high angular discrimination for reducing the interference.

11. (Original) A mobile network according to claim 8 wherein a first RBS site is connected to a second RBS site by means of a point-to-point terminal such that the access terminal, co-located with the second RBS site, routes the traffic from both the first RBS site and the second RBS site to the Hub site such that the first RBS site is less affected by co-channel interference.

12. (Currently Amended) A mobile telecommunication network according to claim 8 ~~claims 8-11~~ wherein ~~the point-to-point link is a microwave link and uses a portion of the point-to-multipoint frequency block consisting of a single wideband channel, without using a dedicated frequency, thus having a reuse of one~~ means are provided for calls collected at the RBS requiring high bit rate capacities for utilizing a portion of a same frequency spectrum within a point-to-multipoint frequency band such that the access terminal connects transparently via a point-to-point link, effectively allowing use of a frequency reuse factor of one.

13. (Currently Amended) A mobile network according to claim 8 wherein the RBSs ~~can be replaced~~ are associated with by business users receiving and running high bit-rate Business Access applications.

14. (New) A network apparatus for use in a mobile telecommunication network comprising a switch site connected to a plurality of base station controllers (BSCs) hub sites and radio base stations (RBSs) sites defining the transport network of a mobile telecommunication network, wherein the mobile telecommunication network is arranged to provide wireless data and voice services to access terminals, and wherein an access terminal is a terminal device in a hub site for connecting an RBS site with a point-to-multipoint hub, the network apparatus configured to allocate a combination of point-to-point links and point-to-multipoint links for the transport network based on a traffic capacity associated with each radio base station (RBS).

15. (New) A network apparatus according to claim 14, wherein the point-to-point links and point-to-multipoint links include any one of radio microwave links, fiber optic lines, or copper lines.

16. (New) A mobile telecommunication network including the network apparatus according to claim 14, wherein RBS terminals communicating using a point-to-point microwave link include radio antennas having angular discrimination to reduce interference.

17. (New) A mobile telecommunication network including the network apparatus according to claim 14, wherein a first RBS site is connected to a second RBS site by a point-to-point terminal such that an access terminal, co-located with the second RBS site, routes the traffic from both the first RBS site and the second RBS site to the Hub site such that the first RBS site is less affected by co-channel interference.

18. (New) A network apparatus according to claim 14, wherein the network apparatus is configured to use a portion of a same frequency spectrum allocated for a point-to-multipoint frequency band for calls collected at the RBS requiring high bit rate capacities such that the

access terminal connects transparently via a point-to-point link effectively allowing use of a frequency reuse factor of one.

19. (New) A mobile telecommunication network including the network apparatus according to claim 14, wherein the RBSs are associated with business users receiving and running high bit-rate Business Access applications.